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Notes:
1. Untranslatable words are replaced with asterisks (****).
2. Texts in the figures are not translated and shown as it is.

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Dictionary: Last updated 09/12/2008 / Priority: 1. Information communication technology (ICT) / 2. Electronic engineering / 3. Technical term

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FULL CONTENTS

[Claim(s)]

[Claim 1] A registration means to register the identification information of two or more portable devices in which wireless transmission is possible, and two or more above-mentioned portable devices for respectively peculiar identification information, A receiving means to receive the peculiar identification information sent from a portable device, a judgment means to judge whether it is in agreement with two or more identification information which two or more identification information which received with this receiving means registered into the above-mentioned registration means, And the keyless entry system characterized by having equipment equipped with a permission means to permit use by the decision result of this judgment means.

[Claim 2] It is the keyless entry system according to claim 1 which the above-mentioned equipment is a car and is characterized by the above-mentioned permission means controlling ON and OFF of a door lock, an ignition switch, and an IMOBI rise function, respectively.

[Detailed Description of the Invention]

[0001]

[Field of the Invention] This invention relates to the keyless entry system which performs locking/unlocking of locking devices, such as a door of a car, for example.

[0002]

[Description of the Prior Art] In the keyless entry system generally adopted by the system which locks / unlocks the locking device of the door of a car, locking/unlocking of a door lock are performed by receiving the peculiar identification information transmitted from a remote controller (it calls for short the following "remote control") for exclusive use by the vehicles side.

[0003] however, [the keyless entry system of the common car mentioned above] Button grabbing for directing locking/unlocking of a door lock with remote control for exclusive use had to be performed, and since it had a load with both hands, when the hand was closed, there was fault that a load once had to be taken down.

[0004] Moreover, when it enters in a specific range of vehicles only by having attached the exclusive card-like key to the body in recent years, while unlocking a door lock automatically An engine IMOBI

rise function ([even if an ignition switch is thrown in, an igniter will not be operated, and] if right authentication information is not inputted) If the function which cannot put an engine into operation is canceled, an injection of an ignition switch is attained and it comes out from a specific range of vehicles on the contrary, while locking a door lock automatically The keyless entry system whose necessity of inserting in a keyhole a key which makes the IMOBI rise function of the above-mentioned engine starting is absolutely none is set as the type of a car in part.

[0005]

[Problem to be solved by the invention] However, also with the new keyless entry system using the exclusive card key of the above, at the point which must carry the exclusive key only for operating the vehicles as a result, it is the same as that of the conventional thing, and problems, such as a close lump of a key in the train, may also be generated depending on a situation.

[0006] Locking/unlocking of not only a car but a key are required equipment, and there is a place which this invention was made in view of the above actual condition, and is made into the purpose in offering a keyless entry system with possible ** also using equipment appropriately not using the key only for the equipment especially.

[0007]

[Means for solving problem] Invention according to claim 1 peculiar identification information, respectively Two or more portable devices in which wireless transmission is possible, A registration means to register the identification information of two or more above-mentioned portable devices, a receiving means to receive the peculiar identification information sent from a portable device, Two or more identification information which received with this receiving means is characterized by having equipment equipped with a judgment means to judge whether it is in agreement with two or more identification information registered into the above-mentioned registration means, and a permission means to permit use by the decision result of this judgment means.

[0008] [such a system configuration, then the device which a user may usually carry / portable telephone / a wrist watch, /, for example] if respectively peculiar identification information is made into the thing in which effective wireless transmission is possible only between very short distance All of the identification information of those devices are registered beforehand, and since a user judges that the equipment of a ratio is used and can permit use when coincidence of two or more identification information is obtained, it also enables ** to use equipment appropriately not using a special key when using the equipment.

[0009] In invention given [above-mentioned] in Claim 1, the above-mentioned equipment of invention according to claim 2 is a car, and it is characterized by the above-mentioned permission means controlling ON and OFF of a door lock, an ignition switch, and an IMOBI rise function, respectively.

[0010] In addition to an operation of invention such a system configuration, then given [above-mentioned] in Claim 1, especially [with the car as equipment] In order to control ON and OFF of the IMOBI rise function for preventing the ignition switch for starting a door lock and an engine, and a theft, respectively, Originally, operation of each function in which peculiar operation had to be performed is united, it automates, respectively, and the car where user-friendliness is easier can be realized.

[0011]

[Mode for carrying out the invention] (Form of the 1st operation) This invention is explained with reference to Drawings below about the form of the 1st operation at the time of applying to the keyless

entry system of a car.
[0012] Drawing 1 shows the outline composition of the whole system, and 11 is a car as equipment of a controlled system. The antenna 12 and receive section 13 which followed the technology "Bluetooth (specification name)" (the following "Bluetooth" is called) based on IEEE802.11 standard as a wireless connection method are carried in this car 11. When the portable device corresponding to this Bluetooth exists in a predetermined distance (for example, within about radius 10m), the signal from that portable device is received through an antenna 12 in a receive section 13, and it sends out to a control section 14.
[0013] A control section 14 is what controls ON and OFF of the door lock of this car 11, an ignition switch, and each IMOBI rise function. While connecting the memory 15 for memorizing beforehand the authentication information for canceling the identification information and the IMOBI rise function of various portable devices which the user of this car 11 possesses It connects also with the igniter of the door lock actuator 16 which turns on and off a door lock knob collectively, and an engine 17 which is a controlled system.
[0014] However, there are the portable telephone 21, a wrist watch 22, a handheld computer 23, the handheld game machine 24, and a portable music player 25 as a portable device which the user of this car 11 possesses, for example. Each [these] portable devices 21-25 shall all send identification information peculiar to the device corresponding to above-mentioned Bluetooth, and each of those identification information shall be registered into the above-mentioned memory 15.
[0015] Here, including the combination of the model information and the identification information of a device individual of the device, even if the identification information peculiar to the device which each above-mentioned portable devices 21-25 have is the portable device of the same model, it shall not be with different two for every individual of the.
[0016] Next, operation of the form of the above-mentioned implementation is explained.
[0017] Drawing 2 is repeating and judging whether the signal which shows the contents of processing which a control section 14 performs, and contained the identification information registered into the above-mentioned memory 15 for every fixed cycle at the beginning having been received. It stands by that the user who carried either of each above-mentioned portable devices 21-25 goes into predetermined within the limits of a car 11 (Step A01).
[0018] When it judges that the signal having contained the identification information which carries out a deer and is registered into memory 15 was received Next, it is searched whether the signal having contained the identification information from other portable devices is received between one cycle specified according to above-mentioned Bluetooth (Step A02). As a result, it is judged whether the signal having contained the identification information registered into the two or more set memory 15 in total was receivable (Step A03).
[0019] [when it cannot do, return to processing from the above-mentioned step A01, but] [the right user of this car 11] as a thing included in predetermined within the limits when it is judged that it was able to do Operate the door lock actuator 16 and a door lock state is canceled (Step A04). After uniting, reading authentication information from memory 15 and canceling an IMOBI rise function, the lock in the OFF state of (Step A05) and an ignition switch is canceled (Step A06), and starting of an engine 17 is enabled.
[0020] Also after that, reception of the signal having contained the identification information registered into the above-mentioned memory 15 using a receive section 13 is continued, and it stands by that a user separates from this car 11 by repeating and judging whether that reception stopped (Step A07).

[0021] and [a user] as what is distant from this car 11 when it judges that reception stopped An ignition switch is locked by an OFF state (Step A08), the door lock actuator 16 is operated, all the doors are changed into a locked position (Step A09), an ON setup of the IMOBI rise function is carried out (Step A10), and it returns to a standby state from the above-mentioned step A01 again.
[0022] Thus, in the car 11, without using a key for exclusive use, the IMOBI rise function for preventing an ignition switch for a user starting a door lock and an engine by two or more devices usually carried and a theft is united, and it was made to carry out ON-and-OFF control.
[0023] Therefore, originally the whole of each function in which peculiar operation must be performed can be automated, respectively, and it can be considered as what has the very good user-friendliness for a user.
[0024] In addition, although explained as what uses Bluetooth as a wireless connection method, as long as the form of the above-mentioned implementation is the wireless connection method which limits and uses distance, they may be other things.
[0025] (Form of the 2nd operation) [this invention] below The form of the 2nd operation at the time of applying to the conference room managerial system in the company using the enclosure of LAN which unified the yard PHS (Personal Handyphone System: second generation cordless phone system) network is explained with reference to Drawings.
[0026] Drawing 3 shows the outline composition of the whole system, and 31 is in the company [LAN]. the personal computer (PC) which the server equipment 32 in which the Administrative Division does generalization management, for example, and each office worker use for these in-company LAN31 individually -- 33, 33, and -- The yard base stations 34 and 34 of a large number arranged so that public places, such as not only the office of the enclosure of corporate but a passage, and each conference rooms 35 and 35, --, may be covered, and -- shall be connected, respectively.
[0027] Moreover, although not illustrated here, the identification information of the PHS terminal machine with which a duty of carrying of for example, a PHS terminal machine shall be imposed upon all the members, and the employee of this company is carrying each company member shall be beforehand registered into server equipment 32.
[0028] Therefore, if location registration of the above-mentioned yard base stations 34 and 34 and the PHS terminal machine which exists -- within the respectively very narrow area range [m] 10, for example, a radius, is carried out and a system is built as a connectable thing With these yard base stations 34 and 34 and the server equipment 32 of -- which carries out generalization management of the information, which PHS terminal machine is carrying out location registration to which yard base station at the time enables it to grasp all the employees' whereabouts.
[0029] Moreover, especially in each conference rooms 35 and 35 and --, the yard base station which corresponded the partial range in front of the interior of a room and a door for every conference room shall adjust and take charge of ****** level.
[0030] Next, operation of the form of the above-mentioned implementation is explained.
[0031] [using the conference rooms 35 where the employee of this company is arbitrary here] as desired, only when access is applied to server equipment 32 beforehand using the self personal computer 33, the use permission demand of a conference room is transmitted and it is accepted -- the procedure which can use the conference room shall be taken
[0032] Drawing 4 is what shows the contents of control processing which server equipment 32 performs about one conference room 35. [obtain / by location registration processing / the identification

information of the PHS terminal machine which the employee to whom use of the conference room 35 is permitted in advance at the beginning in the yard base station 34 installed in the conference room 35 carries] (Step B01) Or these are stood by by repeating and judging whether the demand of personal computers 33 and 33 and -- which permits use of the conference room 35 from either has been sent (Step B02).

[0033] If it judges that the deer was carried out and there was a use permission demand of the conference room from the individual personal computer 33 at Step B02 The input receptionist according to the predetermined format which should be added to the demand is performed. In using a conference room, the data of the time, the purpose, a member, a person in charge, etc. is received (Step B08). It stands by that the indicating input of the permission/disapproval to the demand by (Step B09) and a person in charge occurs after displaying all the received contents on the display screen (Step B10).

[0034] And when it judges that the input of permission/disapproval was made, it is judged whether the contents by which the indicating input was carried out anew were what permits a using request (Step B11).

[0035] When the input to which a using request is permitted is made As opposed to the personal computer 33 which has sent the demand after registering as use schedule data of the conference room 35 by the contents which performed the above-mentioned input receptionist (Step B12) The message data in which having permitted the demand is shown is sent a reply (Step B13), a series of processings are ended above, and it returns to processing from the above-mentioned step B01 again.

[0036] moreover, when it is judged that the contents by which the indicating input was carried out at the above-mentioned step B11 are not what permits a using request The message data in which it is shown that a demand was not permitted is sent a reply to the personal computer 33 which has sent the demand (Step B14), a series of processings are ended above, and it returns to processing from the above-mentioned step B01 again.

[0037] Moreover, if it judges that the identification information of the PHS terminal machine which the employee to whom use of the conference room 35 is permitted in advance in the yard base station 34 installed in the conference room 35 at the above-mentioned step B01 carries was obtained by location registration processing Next, between one cycle specified by the TDMA (Time Division Multiple Access: time division multiple access) method specified with PHS, It is judged whether the identification information of the PHS terminal machine which the employee to whom it searchs whether the identification information of other PHS terminal machines is obtained by location registration processing (Step B03), and two or more use of the conference room 35 is permitted in total as a result carries is obtained (Step B04).

[0038] [when not obtained, return to processing from the above-mentioned step B01, but] Since there will be two or more employees to whom use of this conference room 35 was permitted near before [of this conference room 35] a door when it is judged that it was obtained, the door lock of that conference room is canceled and the interior of a room of a conference room 35 is changed into an usable state (Step B05).

[0039] Then, it is repeating and judging shortly the identification information of the PHS terminal machine which the employee to whom it is the yard base station 34 installed in that conference room 35, and use is permitted carries no longer being obtained by location registration processing, and stands by that all the employees leave this conference room 35 (Step B06).

[0040] And when it judges that all the employees left this conference room 35, a door lock is again set as

an ON state (Step B07), and it returns to a standby state from the above-mentioned step B01 again.
[0041] Thus, when two or more employees to whom use was permitted gathered, the locked position of the door was canceled automatically, and when nobody stopped having been, it was made to lock again in a conference room 35, without using the key for exclusive use for unlocked/locking a door.
[0042] [therefore, the employee who is going to use a conference room] If use permission is obtained in advance using the personal computer 33 grade of self, when two or more employees gather first, a conference room can be freely used for within a time [for which it applied without the key], and it can be considered as what has the very good user-friendliness for an employee.
[0043] In addition, although explained as what uses a yard PHS network as a wireless connection method, as long as the form of the above-mentioned implementation is the wireless connection method which limits and uses distance, they may be other things.
[0044] In addition, let this invention be what has possible deforming variously and carrying out within limits which do not deviate not only from the form of the above-mentioned implementation but from its summary.
[0045] Furthermore, invention of various stages is included in the form of the above-mentioned implementation, and various invention may be extracted by the proper combination in two or more constituent elements indicated. For example, even if some constituent elements are deleted from all the constituent elements shown in the form of operation At least one of the technical problems described in the column of Object of the Invention is solvable, and when at least one of the effects described in the column of the effect of the invention is obtained, the composition from which these constituent elements were deleted may be extracted as invention.
[0046]
[Effect of the Invention] [the device which a user may usually carry / portable telephone / a wrist watch, /, for example according to invention according to claim 1] if respectively peculiar identification information is made into the thing in which effective wireless transmission is possible only between very short distance All of the identification information of those devices are registered beforehand, and since a user judges that the equipment of a ratio is used and can permit use when coincidence of two or more identification information is obtained, it also enables ** to use equipment appropriately not using a special key when using the equipment.
[0047] According to invention according to claim 2, in addition to an effect of the invention given [above-mentioned] in Claim 1, especially [with the car as equipment] In order to control ON and OFF of the IMOBI rise function for preventing a door lock, the ignition switch for starting an engine, and a theft, respectively, Originally, operation of each function in which peculiar operation had to be performed is united, it automates, respectively, and the car where user-friendliness is easier can be realized.

[Brief Description of the Drawings]
[Drawing 1] The figure showing the outline composition of the system concerning the form of operation of the 1st of this invention.
[Drawing 2] The flow chart which shows the contents of processing of operation by the control section concerning the form of this operation.

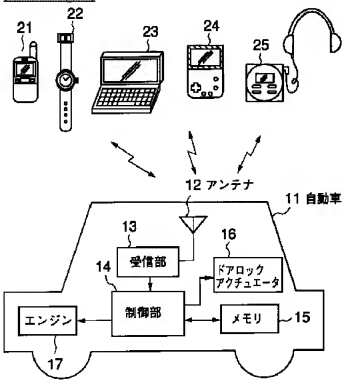
[Drawing 3] The figure showing the outline composition of the system concerning the form of operation of the 2nd of this invention.

[Drawing 4] The flow chart which shows the contents of processing of operation by the server equipment concerning the form of this operation.

[Explanations of letters or numerals]

11 -- Car
12 -- Antenna
13 -- Receive section
14 -- Control section
15 -- Memory
16 -- Door lock actuator
17 -- Engine
21 -- Portable telephone
22 -- Wrist watch
23 -- Handheld computer
24 -- Handheld game machine
25 -- Portable music player
31 -- In the company [LAN]
32 -- Server equipment
33 -- Personal computer (PC)
34 -- Yard base station
35 -- Conference room

[Drawing 1]



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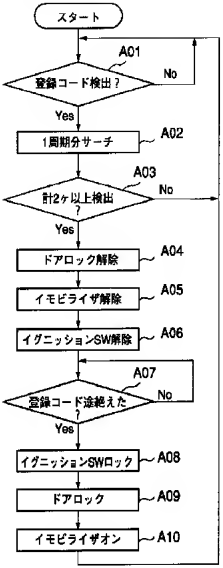
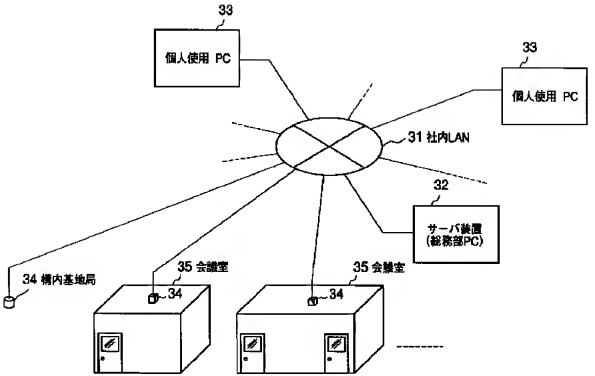


[Drawing 3]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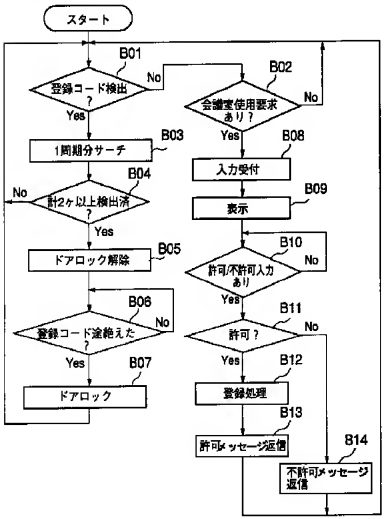
個人使用 PC
33
個人使用 PC
31 社内LAN
32
サーバ装置
(総務部PC)
34 構内基地局
35 会議室
34
35 会議室
34

[Drawing 4]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[Translation done.]